

FIG. 1

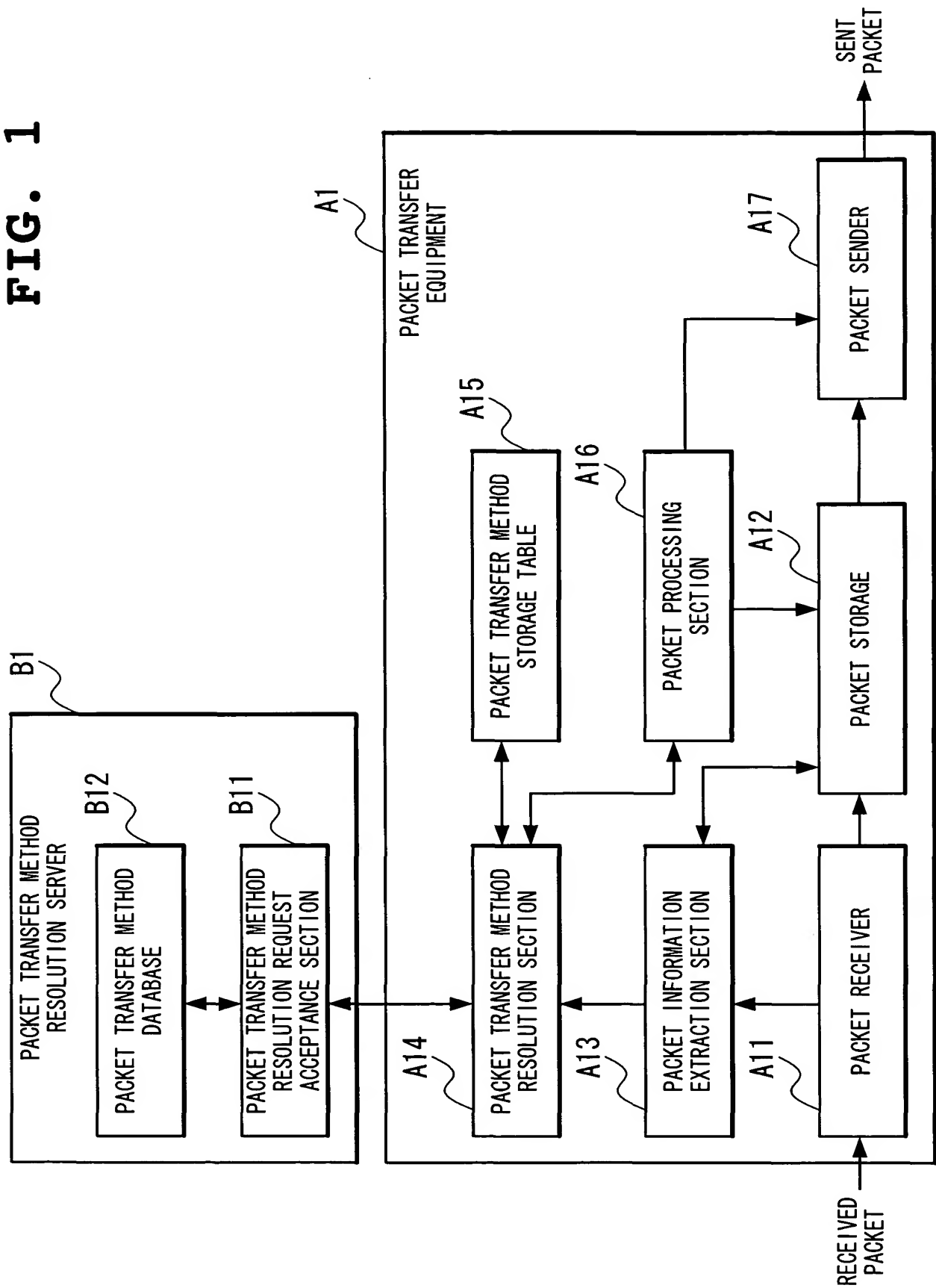


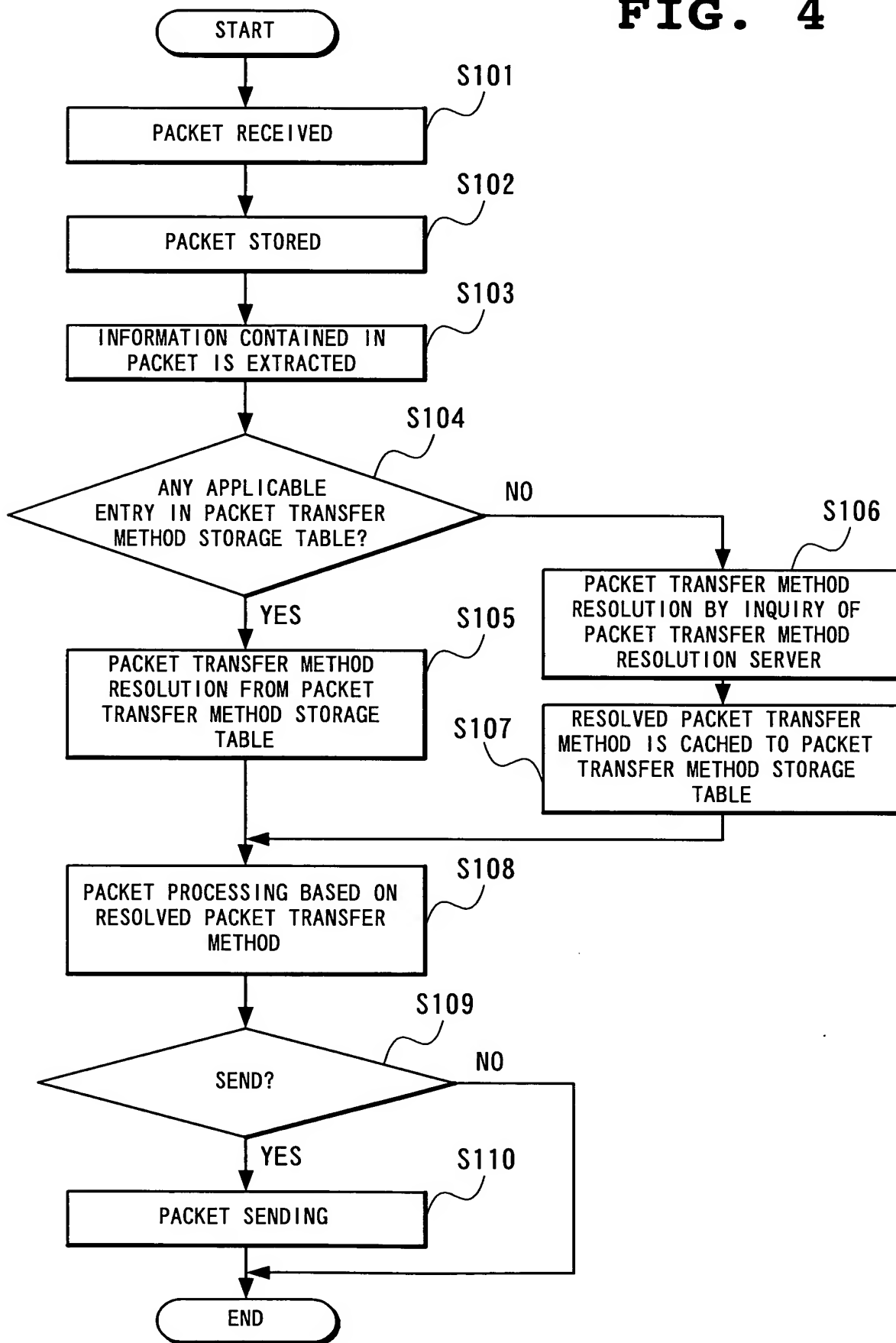
FIG. 2

101

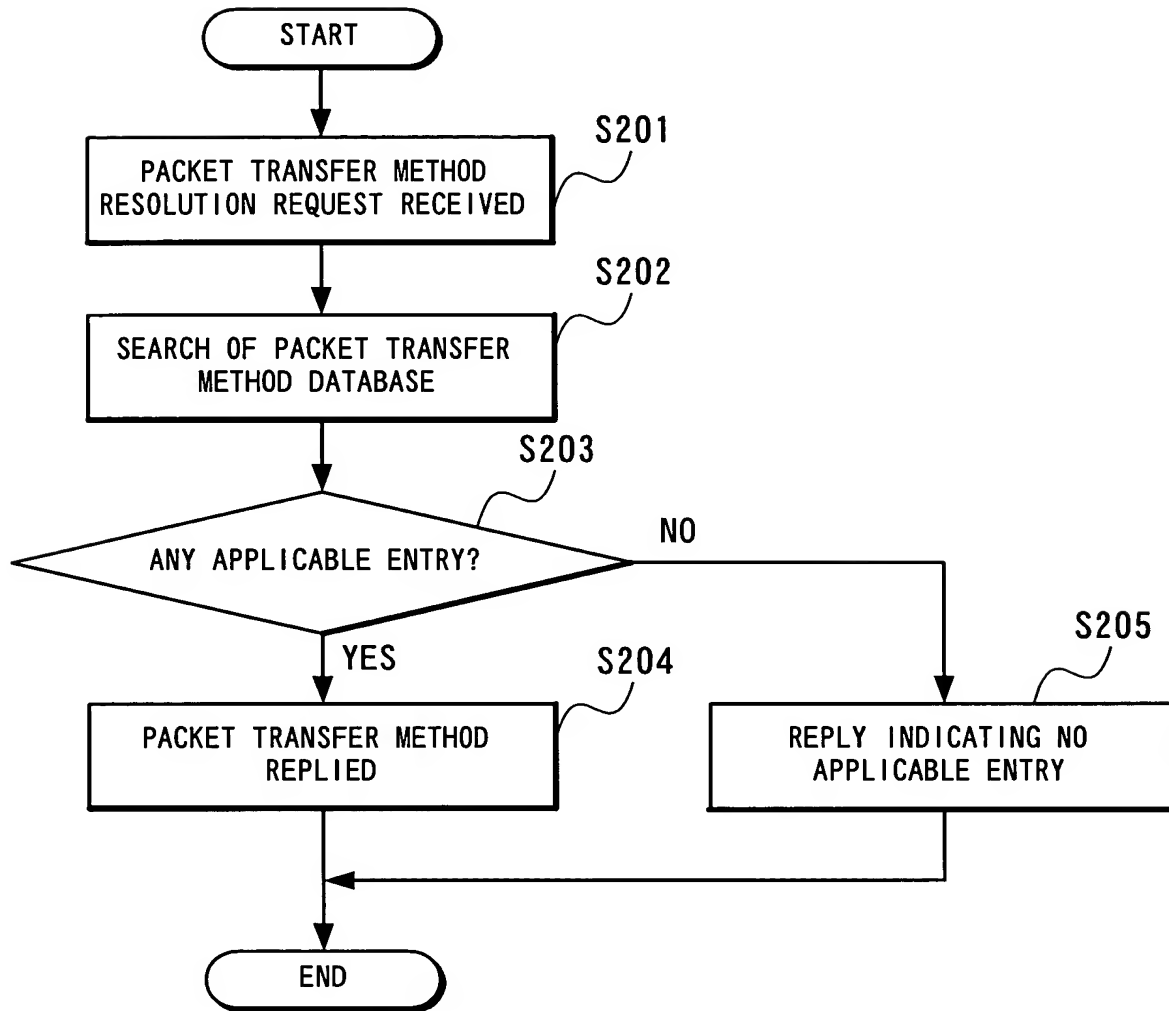
INPUT PACKET INFORMATION				TRANSFER METHOD		
DESTINATION IP ADDRESS	DESTINATION PORT No.	VLAN-ID	DESTINATION IP ADDRESS	DESTINATION PORT No.	DESTINATION MAC ADDRESS	OUTPUT PORT
10.1.1.1	80, 8080	100	10.2.2.2	—	0x00:ab:da:32:45:67	1
20.2.2.2	7070	200	—	8080	0x00:da:cf:12:34:56	2
...	...	...	...	...	...	...

[illegible]

**FIG. 4**



**FIG. 5**



**FIG 6**

109  


RECEIVE PORT	EXTRACTED PACKET INFORMATION
80	URL , COOKIE
OTHER THAN 80	DESTINATION IP ADDRESS, VLAN-ID

FIG. 7

110

INPUT PACKET INFORMATION			TRANSFER METHOD		
URL	DESTINATION IP ADDRESS	VLAN-ID	SOURCE IP ADDRESS	DESTINATION MAC ADDRESS	VLAN-ID
www.aaa.com/*	—	—	50.1.1.1	0x00:12:34:56:78:9a	100
www.bbb.net/*	—	100	50.1.1.1	0x00:bc:de:f0:12:34	200
—	20.30.40.50	200	60.1.1.1	0x00:98:76:54:32:10	200
...	...	...	...	...	...

FIG. 8

111

INPUT PACKET INFORMATION			TRANSFER METHOD				
URL	DESTINATION IP ADDRESS	VLAN-ID	SOURCE IP ADDRESS	DESTINATION IP ADDRESS	DESTINATION PORT No.	DESTINATION MAC ADDRESS	VLAN-ID
www.aaa.com/*	—	—	—	20.2.2.2	—	0x00:12:34:56:78:9a	200
www.bbb.net/*	—	100	40.1.1.1	30.3.3.3	80	0x00:bc:de:f0:12:34	—
—	20.30.40.50	200	60.1.2.3	—	—	0x00:98:76:54:32:10	300
...	...	...	...	...	...	...	...



FIG. 9

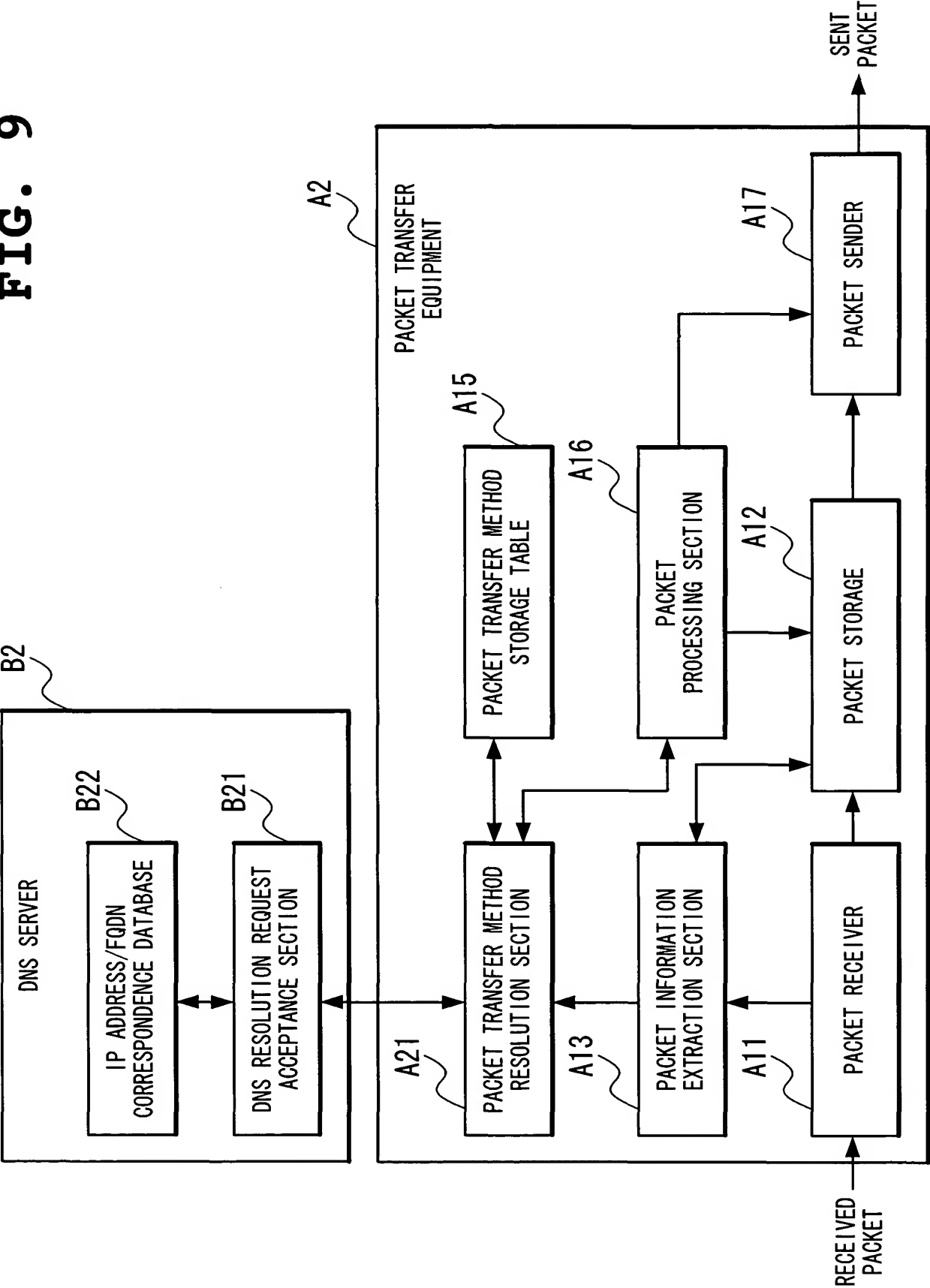


FIG. 10

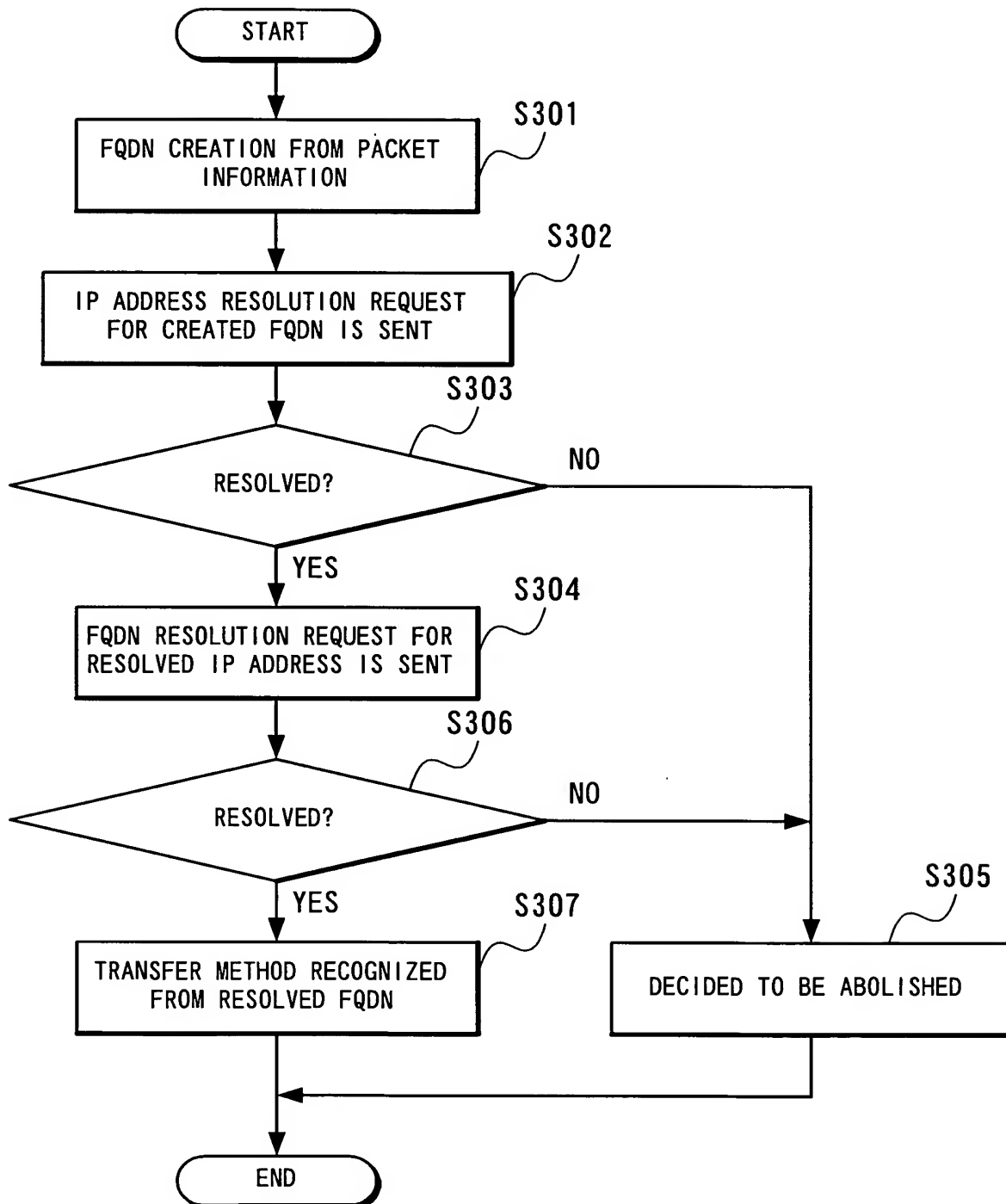
103

FQDN	IP ADDRESS
dstport-7070.dstip-20-1-1-1.vlan-100.resolve.org	192.168.1.1
dstport-7070.dstip-30-1-1-1.vlan-200.resolve.org	192.168.2.2
...	...

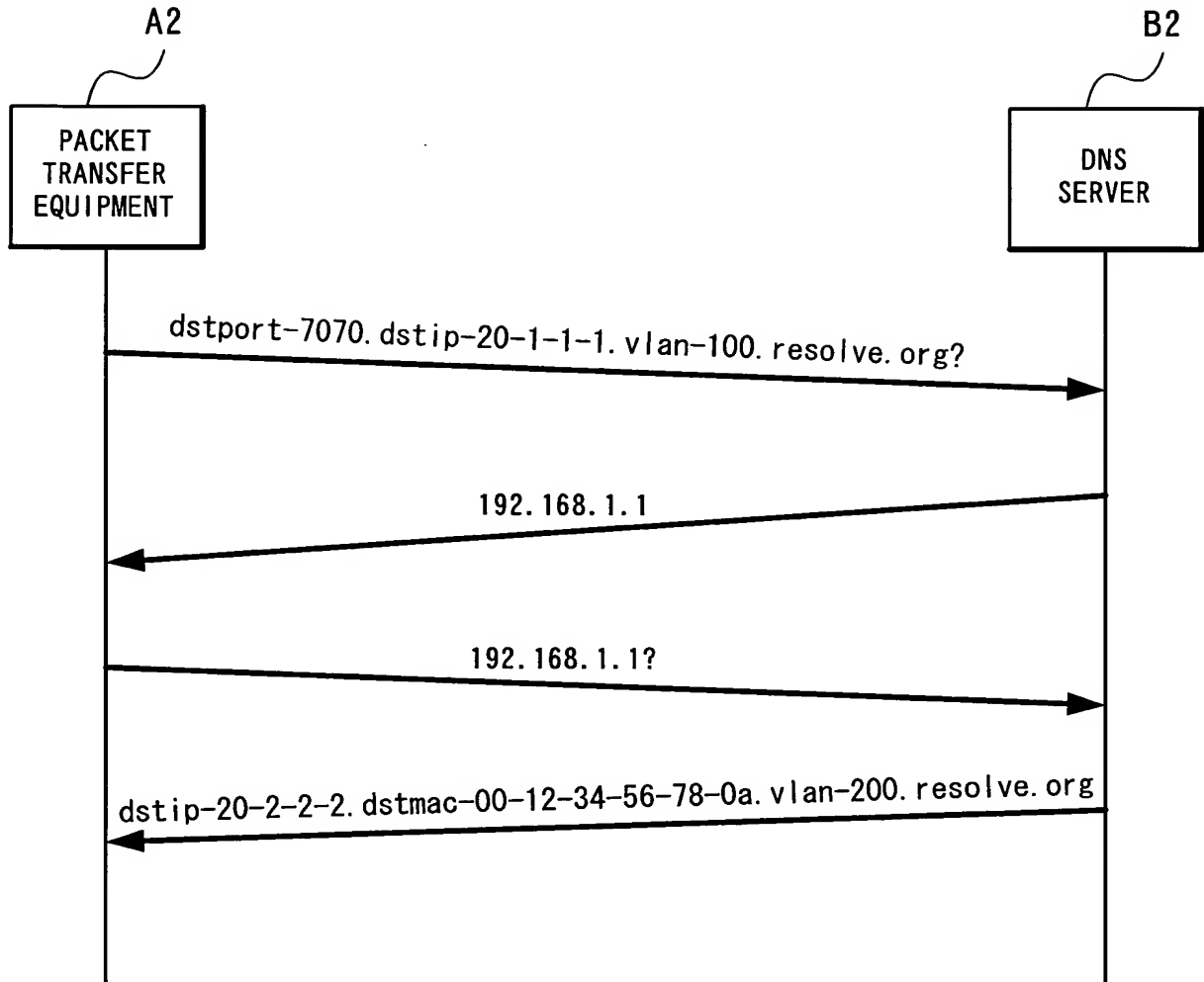
104

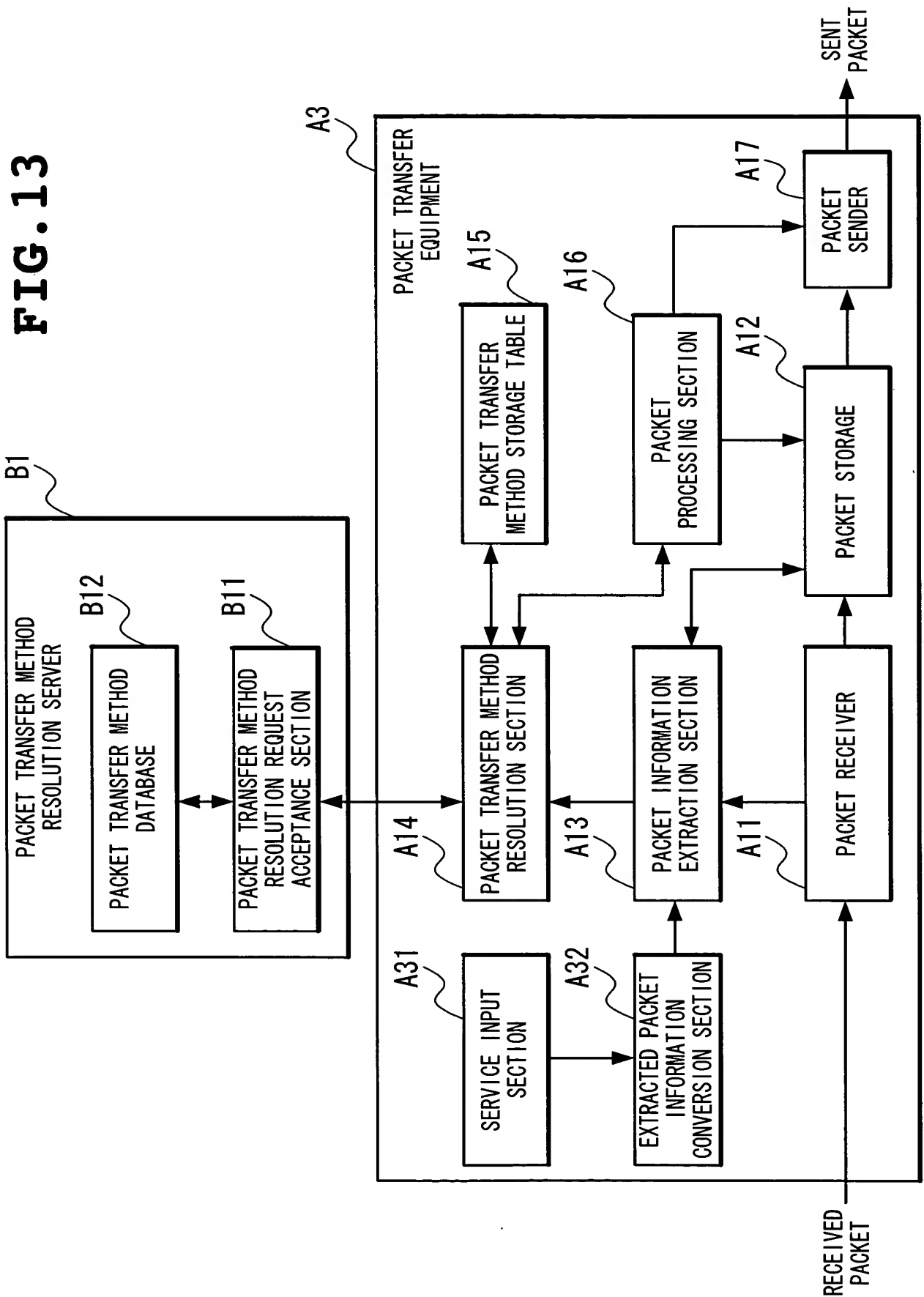
IP ADDRESS	FQDN
192.168.1.1	dstip-20-2-2-2.dstmac-00-12-34-56-78-0a.vlan-200.resolve.org
192.168.2.2	srcip-30-3-3-3.dstport-8080.dstmac-00-bc-de-f0-12-34.resolve.org
...	...

**FIG. 11**




## FIG. 12





## FIG. 14

105  


SERVICE	EXTRACTED PACKET INFORMATION
LAYER 2 SWITCH SERVICE	DESTINATION MAC ADDRESS, VLAN-ID
ROUTER SERVICE	DESTINATION IP ADDRESS
LAYER 4 SWITCH SERVICE	DESTINATION TCP/UDP PORT No., DESTINATION IP ADDRESS
LAYER 7 SWITCH SERVICE	URL, COOKIE, SOURCE IP ADDRESS
. . .	. . .

FIG. 15

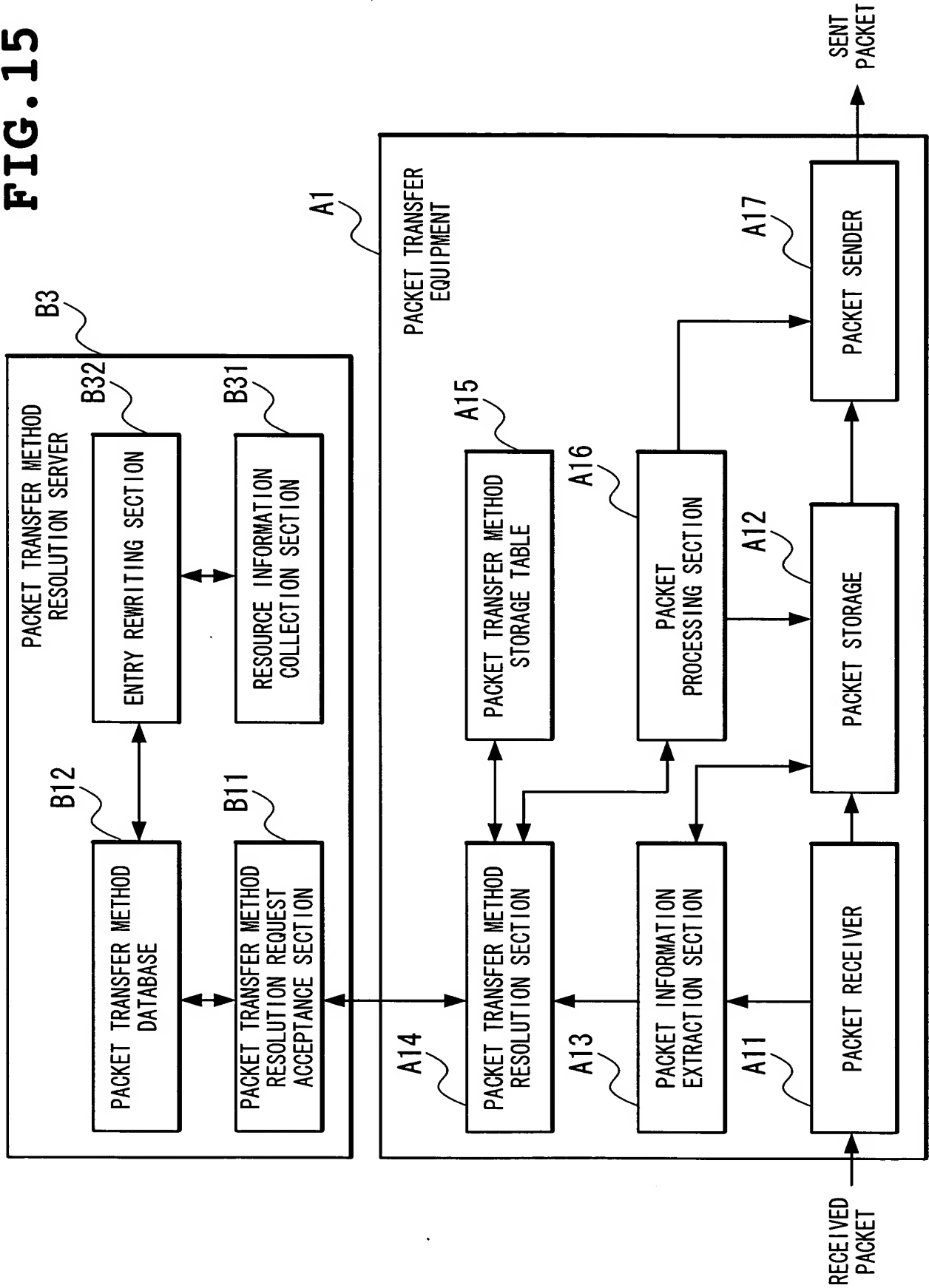


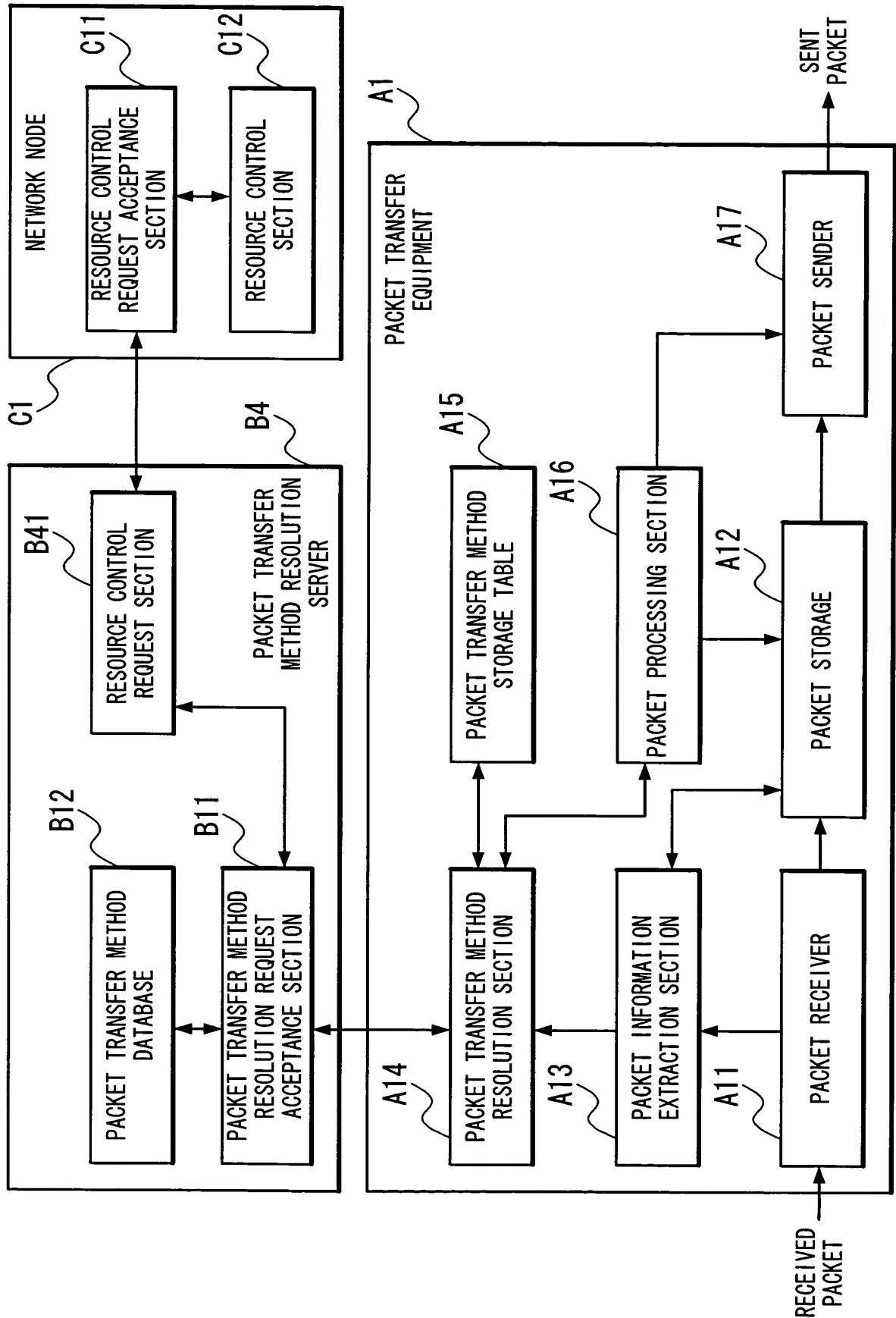
FIG. 16

106

INPUT PACKET INFORMATION		TRANSFER METHOD			
URL	RESOURCE REQUEST	URL	DESTINATION IP ADDRESS	DESTINATION MAC ADDRESS	user-priority
www.movie.org/aaa.fmt	IMPORTANCE PLACED ON WIDE DOWNSTREAM BAND	—	20.2.2.2	0x00:12:34:56:78:9a	7
www.text.net/bbb.txt	IMPORTANCE PLACED ON LOW DELAY	www.text.net/ccc.txt	—	0x00:bc:de:f0:12:34	5
...	...	...	...	...	...



**FIG. 17**



107

[illegible]

**FIG 19**

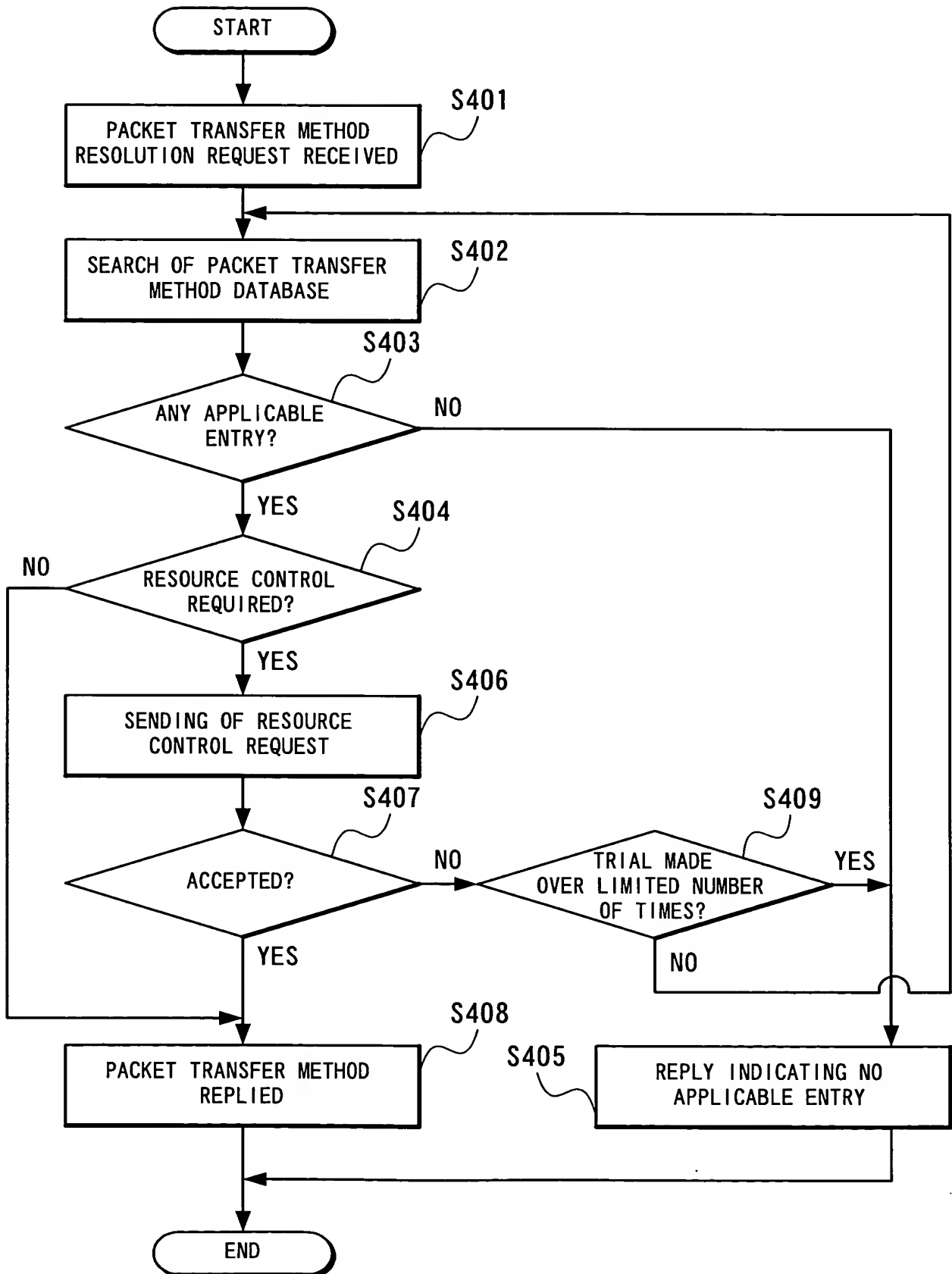
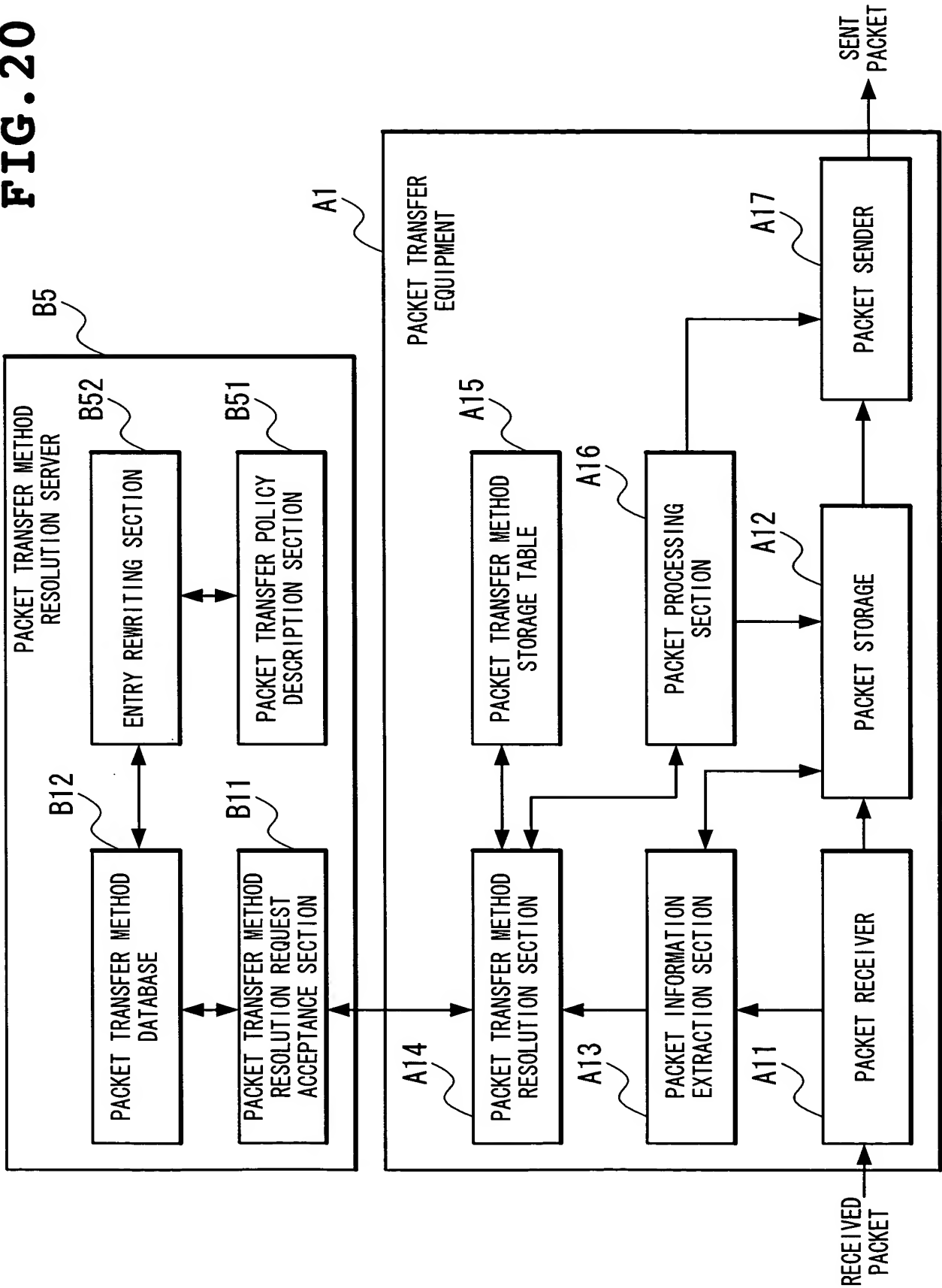


FIG. 20



**FIG. 21**

108

INPUT PACKET INFORMATION		TRANSFER METHOD			PACKET TRANSFER POLICY
URL	DESTINATION PORT No.	URL	DESTINATION IP ADDRESS	DESTINATION VLAN-ID	
www.portal.com	80	www.biglobe.net	20.1.1.1	100	TRANSFER WITH PRIORITY UP TO 1000 TIMES
www.abc.org	8080	www.xyz.com	30.1.1.1	—	TRANSFER AT PROBABILITY OF 60%
...	...	...	...	...	...

FIG. 22

112

INPUT PACKET INFORMATION		TRANSFER METHOD			
URL	DESTINATION PORT No.	URL	DESTINATION IP ADDRESS	DESTINATION VLAN-ID	SELECTION STANDARD
www.portal.com	80	www.biglobe.net	20.1.1.1	100	SELECTED WITH PRIORITY FOR 1,000 MORE TIMES
		—	—	100	SELECTED IN DEFAULT SETTING
www.abc.org	8080	www.xyz.com	30.1.1.1	—	SELECTED WITH A WEIGHT OF 60%
		—	—	200	SELECTED WITH A WEIGHT OF 40%
...	...	...	...	...	...

FIG. 23 (PRIOR ART)

TYPE OF INFORMATION CONTAINED IN PACKET / TYPE OF INFORMATION RELATED TO TRANSFER METHOD	1 TYPE (FIXED)	1 TYPE (DETERMINED FOR EACH PACKET)	SEVERAL TYPES (FIXED)	SEVERAL TYPES (DETERMINED FOR EACH PACKET)
1 TYPE (FIXED)	A	E	I	M
1 TYPE (DETERMINED FOR EACH PACKET)	B	F	J	N
SEVERAL TYPES (FIXED)	C	G	K	O
SEVERAL TYPES (DETERMINED FOR EACH PACKET)	D	H	L	P